is so inconsequential that, if distributed among all the hospitals of the country, "would provide about \$0.08 per patient-day toward operating costs."

The above figures, taken from the survey reports to the American Medical Association, the American College of Surgeons and other sources, indicate what a large place hospitals have in the lives of both physicians and patients, and why proposals for hospitalization and medical service on a periodic-payment basis must give consideration to these institutions, since, necessarily, they are important elements in all such plans.

CHIROPRACTIC: A LEGAL OPINION ON ITS THERAPEUTIC SCOPE*

The Opinion Handed Down by Judge John J. Van Nostrand.—In the department for Original Articles, on page 419 of this issue of California and Western Medicine, will be found an opinion rendered by the Honorable John J. Van Nostrand of the Superior Court of California, in and for the City and County of San Francisco, in which Citizen M. James McGranaghan, who holds himself before the public both as a chiropractor and an attorney-at law, sought to have the Court determine the diagnostic and treatment scope of his chiropractic license.

How Chiropractor McGranaghan Placed Himself on Trial.—In order to bring his case before the courts, the plaintiff, McGranaghan, alleged his license allowed him to do most of the things embraced in the practice of medicine. Chiropractor Berger intervened, claiming such a license permitted only a lesser scope of activity.

The People of the State of California, through Attorney-General U. S. Webb, also intervened, asking the court to determine, not who was right, but *what* was right.

Attorney-General Webb contended both parties sought to do more than the Chiropractic Act permitted its licentiates to do.

After a trial lasting approximately two months, during which the People's case was presented by Deputy Attorney-General Lionel Browne, the court determined neither chiropractor could perform the acts which they sought to perform. Most of the things they tried to do were held to come within the domain of medical practice.

Excerpts from the brief submitted by Attorney-General Webb and Deputy Attorneys-General Leon French and Lionel Browne are printed on page 414 of this issue.

The Decisive Nature of the Van Nostrand Opinion.—In the opinion which was handed down on September 28, 1936, Judge Van Nostrand states:

I am not in accord with the position assumed by the plaintiff herein as to the unconstitutionality of the words

"Materia Medica," for they have a well-defined and recognized meaning, and have been frequently used by the courts of this state, and consequently I hold that the chiropractor has no right to administer or prescribe drugs or medicines. . . .

Such appliances or agencies as the chiropractic table, chiropractic hammer, and towels and other instrumentalities as are purely sanitary, do not violate the statute; but the use of the various therapeutic agencies, such as electrotherapy, hydrotherapy, colonic therapy, etc., are embraced in the practice of medicine and, therefore, forbidden to chiropractors.

To many readers, the opinion of the Honorable William P. James of the Superior Court of San Jose, to be found on page 142 in the February, 1934, issue of California and Western Medicine, in a case reversed for technical reasons, may be of special interest, because of a point of view similar to that of Judge Van Nostrand.

Thirty-five Hundred California Chiropractors Also Should Be Interested.—The Chiropractic Practice Act became a law by initiative vote of the California electorate in 1922, and since that date the Chiropractic Board has licensed almost 3,500 practitioners of that cult. It is a hopeful sign that a higher court has seen fit to define the limitations of the law. It may be of interest to note to what extent chiropractors will abide thereby. It is not known, at the time of this writing, whether an appeal will be taken.

"PACIFIC COAST ABORTION RING"

A Recent Exposé.—Reference to the column assigned to the California State Board of Medical Examiners, on page 448 in this number of the Official Journal, discloses a series of newspaper items concerning what the press has styled a "tristate illegal operations syndicate," referring to Washington, Oregon and California. The parties accused of the guilty acts, having been haled into court, are on trial before the Honorable Arthur Crum, judge of the Superior Court for the County of Los Angeles. Because of the astounding nature of the evidence which has been submitted, the case has received much mention in the newspapers.

The "syndicate" secured, among other activities, the coöperation of a former enforcement officer of the California Board of Medical Examiners, now for the time being committed to jail by the Court because of his efforts to intimidate witnesses for the State.

Brazenness of the Group.—The leaders of the syndicate, indeed, became so brazen that they even gave defiance to the California Examining Board, in the belief that the safeguards and loopholes, which their legal counselors had advised them to use in their operations, would be sufficient to protect them from attack by the State's authorities. The syndicate's plan of operation was originally conceived by a lay citizen of the State of Washington, a lumberman who went so far as to create a "Medical Acceptance Corporation" (after the style of automobile financing agencies); so that payments, with rates of interest appropriate under the circumstances, might be secured from

^{*} The brief submitted by Attorney-General U. S. Webb appears on page 414; the legal opinion handed down by Judge John J. Van Nostrand is given on page 419. Both articles are worthy of perusal by all licentiates.

some of the patients. So-called clinics were established in about ten of the Coast cities. The money profits are stated to have approximated an annual sum of something like one million dollars!

A perusal of the newspaper items in the State Board column reveals the sordidness of the entire business. The jury's decision in the premises will be of interest. Present indications point to a long and bitter battle in the courts.*

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 430.

EDITORIAL COMMENT

VENOUS PRESSURE

Determination of the venous blood pressure is at times of great value. In congestive failure, associated with failure of the right side of the heart, one of the first signs is increased pressure in the systemic or peripheral veins. Obstruction to a vein or venous channel will cause the pressure to increase distal to the site of the obstruction.

There are four fundamental factors affecting peripheral venous pressure, namely, (1) heart action, (2) intrathoracic pressure, (3) hydrostatic level, and (4) volume of blood in the vein.

Edema and the accumulation of serous fluid occasionally offer diagnostic problems. Determination of the venous pressure and estimation of the blood-plasma-proteins (indirect estimation of the approximate osmotic pressure of the blood) are usually of great help in the differential diagnosis between congestive heart failure, venous obstruction, and the edema of renal disease, depleted nutritional states, blood-loss and certain other metabolic disturbances.

There are two methods for determining venous blood pressure: (1) direct, and (2) indirect. The direct method is based upon a direct measurement of the pressure within a vein by means of a manometer connected with a needle or cannula introduced into the vessel. The indirect method depends upon the external pressure necessary to collapse a vein. The direct method should be chosen when reasonably accurate readings are required or when there is difficulty in obtaining a prominent pliable external vein. The vein chosen and zero level of the manometer tube should be horizontal to the mid-axillary line. This is approximately the level of the right auricle in the

normal chest, with the patient in the recumbent position. This can be accomplished by using a long spirit level. The heart has been questioned as the point from which the hydrostatic factor in venous pressure is measured. However, for clinical purposes it is necessary to have a more or less fixed point or landmark to serve as, at least, a hypothetical zero level. The patient should rest in recumbency for at least fifteen minutes before the test. The manometer tube should have a bore not smaller than 4 millimeters. In the direct method a needle of 18 gauge is sufficient, and sterile aqueous solution of 2 per cent sodium citrate can be used to fill the small Kaufman-Luer syringe, rubber tubing and manometer to the level which is assumed to be the approximate pressure. All air should be excluded, and the plunger of the twoway syringe pushed in to the closed position. The needle is introduced well into the lumen of the vein. The plunger of the syringe is then withdrawn to the sidearm of the syringe, allowing the blood stream to be in direct contact with the manometer tube.

In patients suffering from congestive heart failure it is not uncommon to obtain readings of from 20 to 30 centimeters and occasionally even higher by the direct method described. Under normal conditions of tissue resistance, capillary permeability and osmotic pressure, the edema level of the venous pressure, as measured in one of the large superficial veins of the flexor surface of the elbow, is from 16 to 18 centimeters of the citrate solution. The normal pressure in this vein varies from 4 to 12 centimeters.

The pressure in the venule loop of capillaries is the most important factor in the production of edema of cardiac origin. This venule pressure is difficult to obtain, and at the present time it is not practical to obtain this reading for routine clinical use. The venule pressure is greater, but parallels the venous pressure in rise or fall.

Some clinicians obtain a rough estimation of the venous pressure by observing the level above the heart at which the superficial veins of the hand will collapse.

Serial determinations of the venous blood pressure are of great value in estimating the response of a patient suffering from congestive failure of the right side of the heart.

University of California Hospital.

DUDLEY W. BENNETT, San Francisco.

DETERMINATION OF BLOOD VELOCITY BY THE SODIUM DEHYDRO-CHOLATE METHOD

There are available four principal methods for the estimation of the speed of blood-flow in humans. These are: (a) The radium method of Blumgart, in which radium emanation is injected intravenously and its arrival in any given part of

^{*} Editor's Note.—The trial came to a sudden end and the jury found eleven defendants guilty. A newspaper item on page 440 gives additional information concerning the penitentiary sentences imposed by the Court. † This department of California And Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

^{1.} Blumgart, H. L., Gargill, S. L., and Gilligan, D. R.: Studies on the Velocity of Blood Flow, J. Clin. Investigation, 9:69 (Aug.), 1930.

—The Velocity of Blood Flow in Health and Disease, Medicine, 10:1 (Feb.), 1931.